

17.12.2004

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## CLAIMS

1. A method for desalinating salt-containing water, wherein the salt-containing water is passed through a heat exchanger disposed in a basin containing brine formed by several layers of water lying one above another in the basin, each layer of water having a higher salt content than a layer present there above said brine being heated by solar energy and the heat exchanger being disposed in the lowermost layer of water having a high temperature, whereupon the salt-containing water that has been heated in the heat exchanger is passed through an evaporator for evaporating at least part of the salt-containing water, after which the vapour thus formed is introduced into a condenser so as to obtain water from which the salt has been removed.

2. A method according to claim 1, characterized in that a lower layer of water having a salt content of  $\pm 24\%$ , a middle layer of water having a salt content of  $\pm 15\%$  and an upper layer of water having a salt content of  $\pm 0-4\%$  are formed in the basin.

3. A method according to claim 2, characterized in that each layer of water is formed to a height of  $\pm 1\text{ m}$ .

4. A method according to any one of the preceding claims, characterized in that the water to be desalinated is supplied to a heat exchanger disposed in the basin from a pit that contains water, in which pit a heat exchanger is disposed, through which the condensed water is passed.

5. A method according to any one of the preceding claims, characterized in that the water vapour that has been formed in the evaporator is subjected to a condensation process in a condenser, to which a cooler for supplying cooled air to the condenser is connected.

6. A plant for desalinating salt-containing water, comprising a basin that contains brine formed by several layers of water lying one above another in the basin each layer of water having a higher salt

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content than a layer present there above and to be heated by solar energy, in which a heat exchanger is disposed in the lowermost layer of water, wherein means for supplying the water to be desalinated are connected to an inlet of the heat exchanger and an inlet of an evaporator is connected to an outlet of the heat exchanger, whilst an outlet of the evaporator is connected to means for condensing the water vapour that has been formed in the evaporator.

7. A plant according to claim 6, characterized in that said plant comprises a pit, to which seawater to be desalinated is supplied, and from which the water is carried to the heat exchanger that is disposed in the basin.

8. A plant according to claim 6 or 7, characterized in that the evaporator is connected to a condenser, and in that the plant comprises a pump by means of which water that has condensed in the condenser can be transported to a receiving basin for the water.